4114104

Appl. No. 10/039,288

Amendment under 37 CFR 1.116 Expedited Procedure

Examining Group 1634 - dated April 14, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

(currently amended) A method of typing a proliferative nodule in-a congenital melanocytic nevus as a benign growth, the method comprising providing a nucleic acid sample from the nodule and detecting a numerical aberration in chromosomes, wherein the numerical aberration is selected from the group consisting of a gain of whole chromosome 10, a gain of whole chromosome 11, a loss of whole chromosome 7, or a combination of these numerical aberrations, thereby typing the nodule as a benign growth.

2.-4. (cancelled)

- 5. (previously presented) The method of claim 1, further comprising detecting a gain or loss of another whole chromosome.
- 6. (currently amended) The method of claim 1, wherein the detecting step comprises:

contacting a nucleic acid sample from the patient with a probe which selectively hybridizes to a target polynucleotide sequence on a chromosome selected from the group consisting of chromosome 10, chromosome 11, and chromosome 7; wherein the probe is contacted with the sample under conditions in which the probe binds selectively with the target polynucleotide sequence to form a stable hybridization complex;

detecting the formation of the hybridization complex; and

detecting a change in chromosome number, the change selected from the group

consisting of a gain of chromosome 10, a gain of chromosome 11 and a loss of whole

chromosome 7.

Appl. No. 10/039,288 Amendment under 37 CFR 1.116 Expedited Procedure Examining Group 1634 - dated April 14, 2004 PATENT

- 7. (previously presented) The method of claim 1, wherein the detecting step comprises an amplification reaction.
- 8. (previously presented) The method of claim 7, wherein the amplification reaction is a polymerase chain reaction
- 9. (previously presented) The method of claim 6, wherein the probe is a centromeric probe.
- 10. (original) The method of claim 1, wherein the nucleic acid sample is an interphase nucleus.
- 11. (original) The method of claim 1, wherein the nucleic acid sample is a metaphase cell.
- 12. (original) The method of claim 6, wherein the probe is labeled with a fluorescent label.
- 13. (original) The method of claim 6, wherein the probe is labeled with digoxigenin or biotin.
- 14. (original) The method of claim 6, further comprising the step of blocking the hybridization capacity of repetitive sequences in the nucleic acid sample.
- 15. (original) The method of claim 14, wherein unlabeled blocking nucleic acids comprising repetitive sequences are contacted with the sample.
- 16. (original) The method of claim 15, wherein the unlabeled blocking nucleic acids are Cot-1 DNA.
- 17. (original) The method of claim 6, wherein the probe is bound to a solid substrate.

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Appl. No. 10/039,288 Amendment under 37 CFR 1.116 Expedited Procedure Examining Group 1634 - dated April 14, 2004 <u>PATENT</u>

- 18. (original) The method of claim 17, wherein the probe is a member of an
- 19.-20. (cancelled)